

CLAIMS

1. An aluminum- or aluminum alloy- cleaning alkaline liquid, which is characterized by containing from 0.5 to 40g/L in total of one or more alkali builders selected from alkali metal hydroxide, alkali metal carbonate, inorganic alkali metal phosphate and alkali metal silicate, from 0.2 to 10g/L of one or more of organic phosphonic acid and its salt, from 0.001 to 2g/L of one or more metallic ions selected from metallic ions having from 5.0 to 14.0 of stability constant with the organic phosphonic acid and its salt, and from 0.1 to 10g/L of surfactant.

2. An aluminum- or aluminum-alloy -cleaning alkaline liquid according to claim 1, characterized in that the organic phosphonic acid and its salt (A) and one or more metallic ions (B) selected from metallic ions having from 5.0 to 14.0 of stability constant with the organic phosphonic acid and its salt lie within a weight ratio(A): (B) 100 :0.05 to 20.

3. An aluminum- or aluminum alloy -cleaning alkaline liquid according to claim 1 or 2, characterized in that the alkaline cleaning liquid further contains from 0.1 to 10.0g/L of one or more chelating agents, selected from gluconic acid, heptogluconic acid, glycolic acid, oxalic acid, citric acid, tartaric acid, malonic acid, formic acid, glutaric acid, propionic acid, succinic acid, malic acid, lactic acid, acetic acid, and benzoic acid.

4. An aluminum- or aluminum alloy cleaning alkaline liquid according to any one of claims 1 through 3, characterized in that the metallic ions having from 5.0 to 14.0 of stability content with the organic phosphonic acid and its salt are one or more selected from manganese ion, magnesium ion, calcium ion, iron ion, zinc ion and copper ion.

5. An aluminum- or aluminum alloy-cleaning alkaline liquid according to any one of claims 1 through 4, characterized in that 60% or more of said alkali metal hydroxide and alkali metal carbonate in terms of alkali metal mole ratio is potassium.

6. An aluminum- or aluminum alloy-cleaning alkaline liquid according to any one of claims 1 through 5, pH of said alkaline cleaning liquid is in the range of from 9.0 to 13.0.

7. A method for alkaline cleaning of aluminum or aluminum alloy, characterized in that the alkaline cleaning liquid according to any one of claims 1 through 6 is brought into contact with the aluminum or aluminum alloy at a temperature of from 30 to 70°C for 2 to 120 seconds, and subsequently water rinsing.